

Appendix A

Fisher Distribution Maps from Sierra Pacific Industries' Candidate Conservation Agreement with Assurances and associated Conference Opinion issued by U.S. Fish and Wildlife Service (signed May 15, 2008)

1. **Figure 1.** Historical and contemporary fisher locations in northwestern California, page 17 of "Conference Opinion and Findings and Recommendations on Issuance of an Enhancement of Survival Permit for the Fisher (*Martes pennanti*) to Sierra Pacific Industries, Inc."
Permit Number TE166855-0
Note the corrected figure reference to Grinnell et al. 1937 map is Figure 75.
Literature cited in the map legend is also attached.
2. **Figure 2.** Opinion-based distribution of fisher in California and southwestern Oregon, page 4 of Candidate Conservation Agreement with Assurances for Fisher for the Stirling Management Area, between Sierra Pacific Industries and U.S. Fish and Wildlife Service.

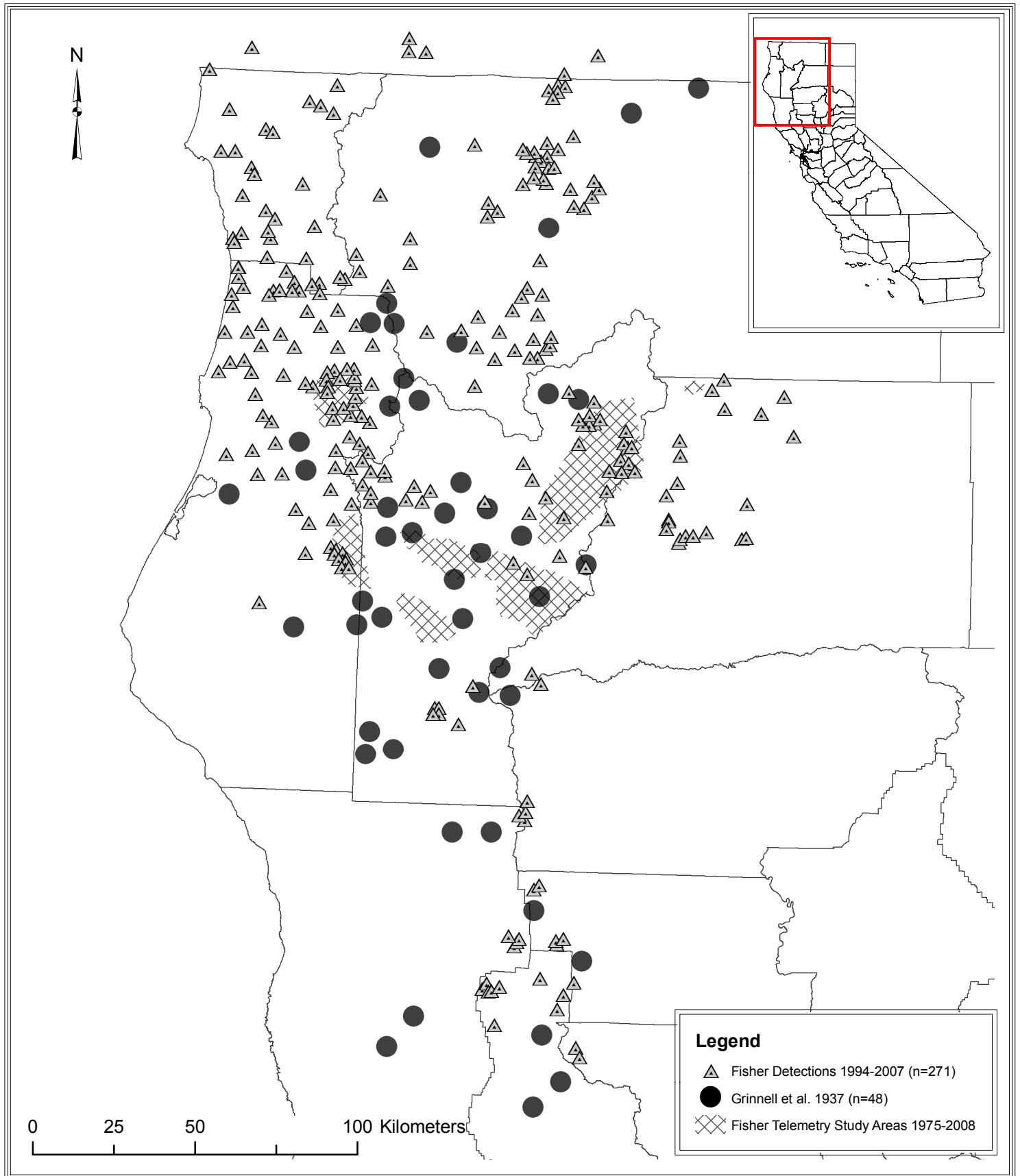


Figure 1. Historical and contemporary fisher locations in northwestern California. Historical locations adapted from Grinnell et al. 1937 figure 75. Contemporary locations (triangles) from miscellaneous surveys (Beyer and Golightly 1996, Dark 1997, Carroll et al. 1999, Zielinski et al. 2000, Slauson and Zielinski 2001, Slauson et al. 2001, Hamm et al. 2003, Slauson et al. 2003, Slauson and Zielinski 2004, Lindstrand 2006, Slauson and Zielinski 2007, Farber et al. 2008, USFWS unpublished data). Cross-hatching represents fisher telemetry study areas (Buck et al. 1994, Self and Kerns 2001, Zielinski et al. 2004, Yaeger 2005). Points represent presence only and do not imply abundance or density.

References for Figure 1 Conference Opinion Map

- Beyer, K. M., and R. T. Golightly. 1996. Distribution of Pacific fisher and other forest carnivores in coastal northwestern California. Humboldt State University, Arcata, California, USA.
- Buck, S., C. Mullis, and A. Mossman. 1994. Habitat use by fishers in adjoining heavily and lightly harvested forest. In: Buskirk, S.W., Harestad, A., and Raphael, M., comps.eds. *Martens, Sables, and Fishers: Biology and Conservation*. Ithaca, N.Y. Cornell Univ. Press: 368-376.
- Carroll, C. R., W. J. Zielinski, and R. F. Noss. 1999. Using presence-absence data to build and test spatial habitat models for the fisher in the Klamath Region, U.S.A. *Conservation Biology* 13:1344-1359.
- Dark, S. J. 1997. A landscape-scale analysis of mammalian carnivore distribution and habitat use by fisher. Thesis, Humboldt State University, Arcata, California, USA.
- Farber, S., T. Franklin, and C. McKnight. 2008. Evaluation of fisher (*Martes pennanti*) distribution in the eastern Klamath Province of interior Northern California. Unpublished Report: Timber Products Company; 130 Phillipe Lane, Yreka, California, 96097.
- Grinnell, J., J. S. Dixon, and J. M. Linsdale. 1937. Furbearing mammals of California, Volume I. University of California Press, Berkeley, California, USA.
- Hamm, K. A., L. V. Diller, R. R. Klug, and T. L. McDonald. 2003. Spatial independence of fisher (*Martes pennanti*) detections at track plates in northwestern California. *American Midland Naturalist* 149:201-210.
- Lindstrand, L., III. 2006. Detections of Pacific fisher around Shasta Lake in northern California. *Transactions of the Western Section of the Wildlife Society* 42:47-52.
- Self, S. E., and S. J. Kerns. 2001. Pacific fisher use of a managed forest landscape in northern California. *Sierra Pacific Industries*.
- Slauson, K. M., and W. J. Zielinski. 2001. Distribution and habitat ecology of American martens and Pacific fishers in southwestern Oregon: Progress Report I, July 1 - November 15, 2001. USDA Forest Service, Pacific Southwest Research Station and Department of Forest Science, Oregon State University.
- _____. 2004. Conservation status of American martens and fishers in the Klamath-Siskiyou bioregion. USDA Forest Service, Pacific Southwest Research Station.

- _____. 2007. Strategic surveys for *Martes* populations in northwestern California: Mendocino National Forest U.S.D.A. Forest Service, Pacific Southwest Research Station, Redwood Sciences Laboratory, Arcata, California.
- Slauson, K. M., W. J. Zielinski, and J. P. Hayes. 2001. Ecology of American Martens In Coastal Northwestern California: Progress Report I. USDA Forest Service, Pacific Southwest Research Station, Redwood Sciences Laboratory, Arcata, California.
- Slauson, K. M., W. J. Zielinski, and G. W. Holm. 2003. Distribution and habitat associations of the Humboldt marten (*Martes americana humboldtensis*) and Pacific fisher (*Martes pennanti pacifica*) in Redwood National and State Parks: Final Report.
- Yaeger, J. S. 2005. Habitat at fisher resting sites in the Klamath Province of northern California. Thesis, Humboldt State University, Arcata, California, USA.
- Zielinski, W. J., R. L. Truex, L. A. Campbell, C. R. Carroll, and F. V. Schlexer. 2000. Systematic surveys as a basis for the conservation of carnivores in California forests - progress report II: 1996 - 1999.
- Zielinski, W. J., R. L. Truex, G. A. Schmidt, F. V. Schlexer, K. N. Schmidt, and R. H. Barrett. 2004. Home range characteristics of fishers in California. *Journal of Mammalogy* 85:649-657.

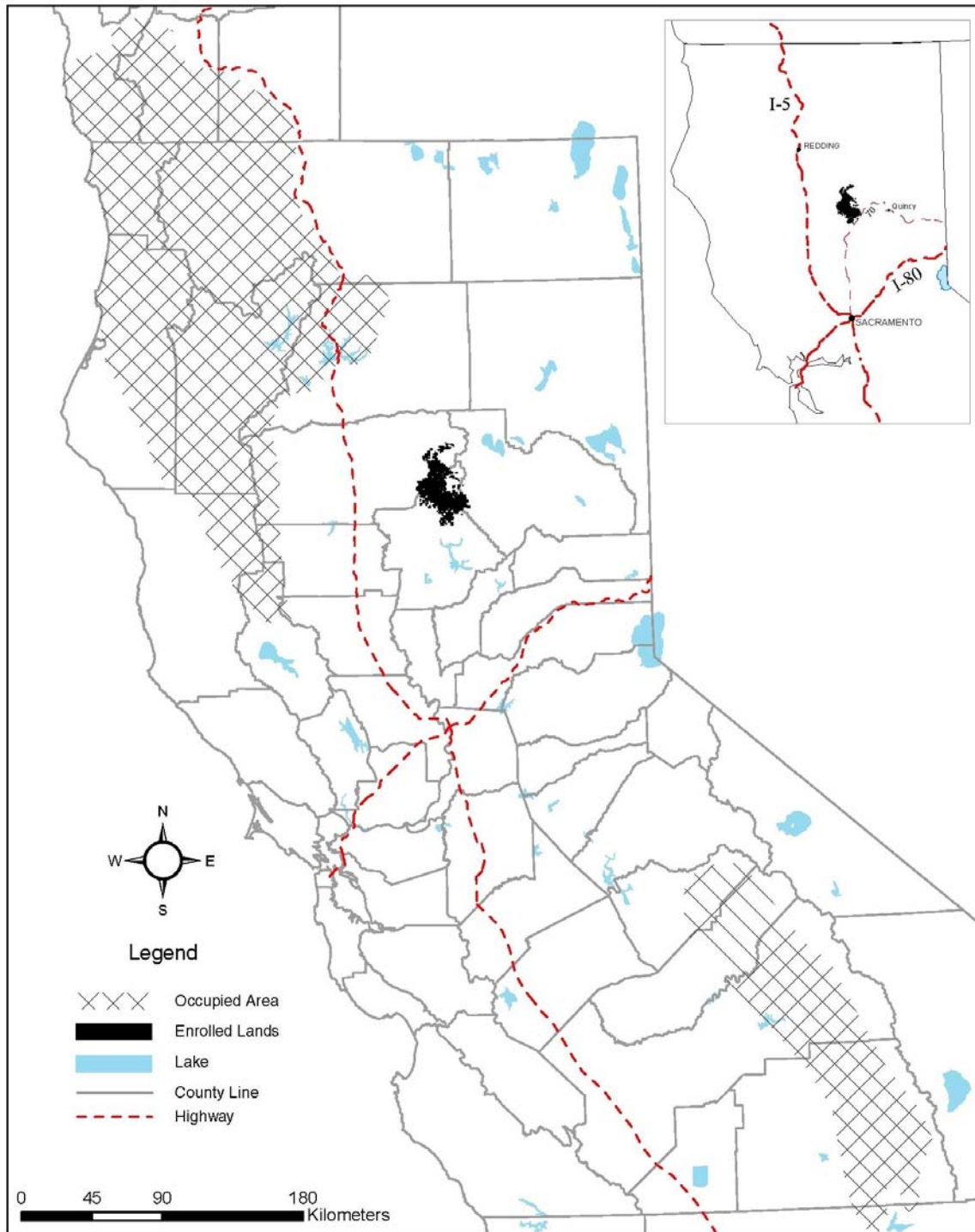


Figure 2. Opinion based distribution of fisher in California and southwestern Oregon. Distribution representations based on current understanding of extent of occurrence for fisher from contemporary survey and research data (USFWS 2008). Enrolled lands shown for reference.

Appendix B

1. Habitat characteristics around fisher den and rest sites, Tables 4, 6, and 7 from Truex et al. (1998).
2. Habitat values associated with den and rest locations of radio-marked fishers in California, southern Oregon, and British Columbia, Tables 1 and 2 (pages 9 and 10) from Candidate Conservation Agreement with Assurances for Fisher for the Stirling Management Area, between Sierra Pacific Industries and U.S. Fish and Wildlife Service.

Table 4. Descriptions of natal and maternal dens and the surrounding habitat for female fishers in the Eastern Klamath, North Coast, and Southern Sierra regions of California. Natal dens refer to the site where parturition is assumed to have occurred while maternal dens refer to sites where an adult female was observed resting with one or more kit(s).

Study Area	Indiv.	Den Type	Tree Species	Tree Condo	DBH	BA	Canopy Closure
Eastern Klamath	1	Maternal'	PIPO	snag	78	59.4	70
	2	Maternal	QUKE	live	88	18.3	98
	3	Maternal	QUCH	live	52	59.4	75
	3	Maternal	QueH	live	40	27.4	77
	3	flJaternal	PSME	live			
North Coast	1	Maternal	CADE	live	105	101.6	97
	2	Maternal	PSME	live	138	78.5	98
	2	Maternal	QUKE	live	53	73.9	100
	3	Maternal	ABCO	log		120.0	72
	3	Maternal	PSME	live	99	50.8	99
	4	Maternal	ABeo	snag	125	166.3	96
Southern Sierra	1	Natal	ABCO	snag	148	32.1	94.
	1	Natal	UNK	snag	112	64.3	96
	2	Natal	ABeo	live	82	64.3	96
	3	Natal	QUKE	live	99	59.7	93
	3	Natal	QUKE	live	76	114.8	97
	3	Maternal	QUKE	live	40	23.1	89
	3	Maternal	ABeo	live	146	27.7	93
	4	Maternal	QUKE	live	52	60.1	96

Table 6. Diameter at breast height (1.37 m) in centimeters for conifer and hardwood rest sites used by fisher on three study areas in California, 1992-1996.

Tree Type	Study Area	<i>n</i>	<i>x</i>	SD	Range	Median
Conifer	Eastern Klamath	215	77.2	46.7	8-196	63.8
	North Coast	136	105.8	42.4	12-205	111.5
	Southern Sierra	176	111.7	49.7	28-433	106.0
Hardwood	Eastern Klamath	38	49.3	27.7	12-132	44.6
	North Coast	35	87.1	28.3	42-149	77.0
	Southern Sierra	141	65.0	21.6	30-145	63.0

Table 7. Habitat characteristics surrounding fisher rest sites located on three study areas in California from 1992-1996.

Variable	Study Area	<i>n</i>	\bar{x}	SD	Range	Median
Basal Area (m/ha ²)	Eastern Klamath	289	59.8	30.9	9.2-169.0	54.8
	North Coast	127	75.6	27.6	9.2-161.7	73.9
	Southern Sierra	285	62.6	26.1	9.2-129.3	64.7
Mean Tree DBH (cm) ^a	Eastern Klamath	293	46.2	28.2	6.8-236.4	39.5
	North Coast	127	118.3	35.6	40.2-198.7	119.2
	Southern Sierra	285	89.6	29.5	24.0-176.2	87.2
Canopy Closure (%)	Eastern Klamath	298	88.2	12.8	3.0-100.0	95.4
	North Coast	127	93.9	7.5	65.2-100.0	96.7
	Southern Sierra	291	92.5	9.1	39.7- 99.9	95.4

^a Mean tree diameter at breast height (DBH, 1.37 m) calculated for the four largest trees at rest sites; the rest site tree was included if it was among the four largest.

Table 1. Values associated with resting locations of radio-collared fisher at various study areas in California and southern Oregon

Study Area	Source	n Indiv Fisher	Rest Tree Type	n Structure	Average dbh of Rest Tree (in)	StDev of Rest Structure (in)	Average QMDa of Rest Site (in)	StDev of Rest Site QMD (in)
Southern Oregon Cascades	Aubry and Raley 2006	19	Live Tree	259 ^b	25.1 males 34.6 females			
			Snag	54 ^c	47.6 males 44.9 females			
North Coast (Six Rivers)	Zielinski et al. 2004a	22	Hardwood	32	34.5	11.9		
			Conifer	64	49.1	14.9		
			Snag	50 ^d	46.8	12.9		
			Log	10	37.4	17.4		
Coastal Klamath Province (Hoopa)	Yaeger 2005	19	Hardwood	86	29.6	10.2	14.4	5.5
			Conifer	52	43.1	15.9		
			Hardwood snag	5	28.7	9.0		
			Conifer snag	7	45.1	19.3		
			Conifer Log	5	36.6	2.6		
Interior Klamath Province (Trinity Lake)	Yaeger 2005	19	Hardwood	26	28.3	10.7		
			Conifer	154	38.8	16.1		
			Hardwood snag	4	26.6	6.6		
			Conifer snag	18	39.5	11.9		
			Conifer Log	9	92.3	19.8		
Interior Klamath Province (Weaverville)	Selfpers comm.	9	Hardwood	11	29.8	15.0	11.0	1.7
			Conifer	10	29.8	11.8		
			Conifer Snag	4	43.8	3.3		
Interior Klamath Province (Castle Creek)	Self and Kerns 2001	3	Conifer	23	29.9	12.5	13.3	3.0
			Hardwood	4	21.0	2.6		
			Snag	5	41.0	14.0		
			Log	2	38	-		
Southern Sierra Nevada ^e	Zielinski et al. 2004a	23	Hardwood	146	25.6	8.4		
			Conifer	70	43.4	14.9		
			Snag	93 ^c	47.4	20.0		
			Log	33	51.8	36.1		
Southern Sien'a Nevada	(Mazzoni 2002)	9	Live Tree	53	37.5	11.0		
			Snag	9	40	17.5		

a _ QMD calculations do not include rest structure

b _ less than 2% hardwood

c _ n = 3 hardwoods

d _ conifer only

e _ giant sequoias removed from calculations of dbh

dbh-diameter breast htgh (4.5ft above ground)

StDev-Standard Deviation

in-inches

QMD-Quadratic Mean Diameter

From page 9 [10] of Candidate Conservation Agreement with Assurances for Fisher for the Stirling Management Area, between Sierra Pacific Industries and U.S. Fish and Wildlife Service, signed May 15, 2008, 33 pages.

Table 2. Values associated with reproductive den (natal and maternal combined) locations of radio-collared fisher at various study areas in California, southern Oregon, and British Columbia

Study Area	Source	n Indiv Fisher	Den Tree Type	n Structure	Average dbh of Den Tree (in)	StDev of Den Structure (in)	Average QMD" of Den Site (in)	StDev of Den Site QMD (in)
British Columbia	Weir 2003		Hardwood	19	41.5			
British Columbia	Weir 2007	4	Hardwood	9	19.8	3.5		
Southern Oregon Cascades (natal dens)	Aubry and Raley 2006	6	Live tree	7	36.2			
			Snag	6	35.0			
Southern Oregon Cascades (maternal dens)	Aubry and Raley 2006	6	Live tree	8	38.2			
			Snag	5	51.9			
			Log	5	41.3			
North Coast (Six Rivers)	Truex et al. 1998	4	Hardwood	1	20.9			
			Conifer	4	46.0			
Coastal Klamath Province (Hoopa)	Yaeger 2005	5	Hardwood snag	1	24		13.0	5.1
			Hardwood	8	25.1	5.6		
			Conifer snag	1	37.9			
Coastal Klamath Province (Hoopa)	Higley and Matthews 2006	16	Live tree	37	40.9			
			Snags	10				
Interior Klamath Province (Trinity Lake)	Yaeger 2005		Hardwood	5	28.2	13.8		
			Conifer snag	1	30.7			
Interior Klamath Province (Weaverville)	Self 2008	9	Hardwood	37	24.8	11.6	10.7	1.5
			Conifer	5	43.4	20.7		
			Snag	20	33.7	14.3		
Southern Sierra Nevada	Truex et al. 1998	4	Hardwood	4	26.3			
			Conifer	3	49.3			

" - QMD calculations do not include den structure.

dbh-Diameter Breast High (405ft above ground)

StDev-Standard Deviation

in-inches

QMD-Quadratic Mean Diameter

From page 10 [11] of Candidate Conservation Agreement with Assurances for Fisher for the Stirling Management Area, between Sierra Pacific Industries and U.S. Fish and Wildlife Service, signed May 15, 2008, 33 pages.

Appendix C

List of Materials Received by the Department on the
Petition to list fisher in California

Sierra Pacific Industries (SPI)

1. Cover Letter dated May 1, 2008 (1 page), to Mr. John Carlson, Jr., California Fish and Game Commission, along with a CD from Steven Self, Wildlife Biologist, SPI, with 6 enclosures:
 - Letter dated April 25, 2008 (4 pages), to Dr. Eric Loft from S. Self, discussing the petition's statements regarding the draft Candidate Conservation Agreement with Assurances (CCAA) for the fisher in California (also received via Email on April 25, 2008 from S. Self, SPI).
 - Progress report to the Department of Fish and Game on fisher reproduction study: Reno, M.A., K.R. Rulon, and C.E. James. 2008. Fisher monitoring within two industrially managed forests of Northern California. Progress report to California Department of Fish and Game. April 25, 2008. Research and Monitoring Department, Sierra Pacific Industries, Anderson, CA. 24 pages (also received via Email on April 25, 2008 from S. Self, SPI).
 - White paper ("Factors Affecting the Fisher, Past, Present and Future in California") discussing the historic, current and future threats facing the fisher and its habitat in California, undated report, 16 pages (also received via Email on May 1, 2008 from S. Self, SPI).
 - White paper ("Existing Regulatory Mechanisms and Fisher") discussing the existing regulatory mechanisms on all ownerships, public and private, within the range of the fisher in California, 16 pages, with 1 page undated cover letter (also received via Email on April 30, 2008 from S. Self, SPI).
 - White paper predicting the number of fisher in California's two populations using the best scientific data and methods available: Self, S., E. Murphy, and S. Farber. 2008. Preliminary estimate of fisher populations in California and southern Oregon. Unpublished report, April 18, 2008. 15 pages (also received via Email on April 25, 2008 from S. Self, SPI).
 - White paper presenting data on overhead canopy cover re-growth after forest harvesting on private lands in California as it relates to fisher foraging and travel habitat, by Ed Murphy, SPI, dated April 30, 2008, 6 pages (also received via Email on April 30, 2008 from S. Self, SPI).
2. Letter dated May 7, 2008 (1 page): Comments to Department of Fish and Game and Fish and Game Commission regarding the petition to list the fisher under the State of California Endangered Species Act (Steven Self, Wildlife Biologist, SPI); received via Email on May 7, 2008.

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3. CCAA package submittal on May 16, 2008 via email:

- Comment letter from SPI (4 pages dated May 16, 2008).
- Signed Candidate Conservation Agreement with Assurances concerning the fisher.

Additionally, 2 federal documents that accompany the signed CCAA:

- "Conference Opinion and Findings and Recommendations on Issuance of an Enhancement of Survival Permit for the Fisher to Sierra Pacific Industries, Inc."
- "Final Environmental Action Statement Screening Form for Candidate Conservation Agreement with Assurances"

Green Diamond

1. Letter dated March 14, 2008 (1 page), with Letter dated November 7, 2003 attached (22 pages); 2003 letter is to Mr. Steve Thompson, U.S. Fish and Wildlife Service, regarding "Comments on the status review of the Pacific fisher (*Martes pennanti pacifica*)", signed by Neal Ewald.
2. Letter dated April 8, 2008, "Green Diamond Information Relevant to Listing Petition"; 2 pages with map attached (Figure 1. Distribution of fishers on Green Diamond Resource Company lands...").
3. Cover letter dated May 1, 2008 (1 page), Executive Summary (4 pages), and Report: Summary of Fisher (*Martes pennanti*) Studies on Green Diamond Resource Company Timberlands, North Coastal California, May 1, 2008. 49 pages. Compiled by: Lowell Diller, Keith Hamm and David Lamphear, Green Diamond Resource Company, Korb, CA; and Joel Thompson, Glen Elder, KS.
4. Email received May 12, 2008 with 2 attachments: a) Letter dated May 9, 2008 (7 pages), "Supplemental Information Submittal on CESA Petition to List the Fisher"; and b) Terrestrial Dead Wood Management Plan, Green Diamond Resource Company, dated April 13, 2005, 15 pages.
5. Email from L. Diller on May 16, 2008 regarding analysis in trend data; "...no statistical evidence for a trend in fisher numbers".
6. Letter dated May 28, 2008 (5 pages), signed by Neal Ewald; "Green Diamond Supplemental Information Submittal on CESA Petition to List the Fisher"; responds to some of the comments submitted by petitioner, Center for Biological Diversity (CBD) in CBD letter dated May 23, 2008. Attached reference, May 2008:

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Thompson, J. L. 2008. Density of Fisher on Managed Timberlands in North Coastal California. M.S. thesis, Humboldt State University, Arcata, CA. 40 pages.

Timber Products Company

1. See attached letter dated March 19, 2008 (2 pages) from Stu Farber itemizing 5 reports submitted.
2. Copy of Power Point Presentation by Stu Farber at May 7, 2008 Stakeholder's Meeting in Sacramento, California, 12 pages total:
 - Evaluation of fisher distribution in the eastern Klamath Province of interior Northern California; Stuart Farber, Tom Franklin and Celeste McKnight.
 - Cooperative Mesocarnivore Genetic Surveys to Estimate the Number of Individuals and Preliminary Population Structure in northern Siskiyou County, California; Stuart Farber, Rich Callas, Steve Burton, Laura Finley, Scott Yaeger, and Michael Schwartz.

W.M. Beaty & Associates

Bob Carey (W.M. Beaty & Assoc.) submitted files on CD on April 25, 2008: Cover Letter, Introduction, and 5 case studies detailing management considerations and practices that conserve and protect fishers and their habitats on over 2.3 million acres of private forest lands in California.

Cover Letter (2 pages) regarding petition to list Pacific fishers.

Introduction (3 pages): Management Considerations and Habitat Protection Provided for Pacific Fishers on Private Forestlands in California – Steve Self, Stuart Farber, Robert Carey, Sal Chinnici, Rich Klug.

Management Considerations and Habitat Protection Provided for Pacific Fishers on Private Forestlands in California Historic, Current, and Future Fisher Habitat on Sierra Pacific Industries Lands – (CaseStudy1_SPI.pdf)

Suitable habitat trends for fishers on Timber Products Company on forestlands in interior Northern California – (CaseStudy2_TP.pdf)

W.M. Beaty & Associates, Inc. Forest Management Activities Benefiting Pacific Fishers (*Martes pennanti*) within Shasta, Siskiyou, Lassen, Modoc, and Plumas Counties, California. – (CaseStudy3_WBA.pdf)

The Pacific Lumber Company (PALCO) Habitat Conservation Plan (HCP)
Pacific Fisher Conservation Strategy – (CaseStudy4_PALCO.pdf)

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Summary of Management Practices Affecting Pacific Fishers and their Habitat on Roseburg Resources Company Lands – (CaseStudy5_RRC.pdf)

Case Study 6: Existing Conservation Measures and Habitat Assessment for Fisher on Green Diamond Resource Company's California Ownership; 5 pg's dated April 30, 2008. Received via U.S. mail, April 30, 2008.

Roseburg

1. Report, 3 pages, undated, but received via email on April 25, 2008 from Rich Klug: Trends in Occupancy of Pacific Fisher Across Northern California: A Case Study.
2. Letter dated April 28, 2008 from Richard Klug (2 pages) with 3 Figures attached.

California Forestry Association

1. May 6, 2008 letter to Dr. Eric R. Loft, 11 pages total, signed by Christopher J. Carr (Morrison/Foerster LLP), 2 documents attached:
 - Literature Review by CH2M Hill, Inc., Gorham and Mader April 2008, 85 pages.
 - Review of Habitat Claims in the Petition to List the Pacific Fisher as an Endangered or Threatened Species under the California Endangered Species Act, by S.F. Mader, CH2M Hill Inc., April 30, 2008, 22 pages.
2. May 20, 2008 letter to Dr. Eric R. Loft, 2 pages total, signed by Christopher J. Carr (Morrison/Foerster LLP), 3 documents attached:
 - Candidate Conservation Agreement with Assurances for Fisher for the Stirling Management Area, between Sierra Pacific Industries and U.S. Fish and Wildlife Service, signed May 15, 2008, 32 pages.
 - Conference Opinion and Findings and Recommendations on Issuance of an Enhancement of Survival Permit for the Fisher (*Martes pennanti*) to Sierra Pacific Industries, Inc., signed May 15, 2008, 21 pages.
 - Final Environmental Action Statement Screening Form for Candidate Conservation Agreement with Assurances (CCAA), signed May 15, 2008, 15 pages.

Central Sierra Environmental Resource Center

April 13, 2008 Email from John Buckley regarding surveys for carnivores over the past decade on Stanislaus National Forest and nearby locales; no detections of fisher.

U.S. Forest Service

Thompson, C. and K. Purcell. 2008. Links between landscape condition and survival and reproduction of fishers in the Kings River Project in the Sierra National Forest. Progress Report for Calif. Dept. of Fish and Game. April 21, 2008. 5 pages. Received April 21, 2008 via Email.

Spencer, W.D., H.L. Rustigian, R.M. Scheller, A. Syphard, J. Strittholt, and B. Ward. 2008. Baseline evaluation of fisher habitat and population status, and effects of fires and fuels management on fishers in the southern Sierra Nevada: Unpublished report prepared for USDA Forest Service, Pacific Southwest Region. June 2008. 133 pp + appendices. Received hard copies June 10, 2008 from USFS.

Mendocino Redwood Company

Douglas, R. B. 2008. Mesocarnivore distribution on commercial timberlands in Mendocino County. Draft unpublished report submitted to the California Department of Fish and Game, April 29, 2008. 6 pages. Draft report received via Email on April 29, 2008.

Southern California Edison

April 30, 2008 Email from Stephen Byrd, Wildlife Biologist, 2 documents attached:

- “Comments in response to the petition for listing the Pacific fisher”, by Stephen Byrd, 2 pages.
- “Comments on: A Petition to list the Pacific fisher”, by Patrick Emmert, Forester, RPF#1839, 2 pages.

Center for Biological Diversity

See attached list of items received on May 23, 2008. Cover letter dated May 23, 2008 (29 pages) and 11 attachments.

U.S. Fish and Wildlife Service (USFWS)

Received via Email on May 16, 2008 from Scott Yaeger (USFWS):
Integral Ecology Research Center. 2008. Pathogens associated with fishers (*Martes pennanti*) and sympatric mesocarnivores in California. Final report submitted to the USFWS, Yreka, CA, USA.

Integral Ecology Research Center

Received via Email on May 23, 2008 from Mourad Gabriel:

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- Summary of Fisher Predation in Two Fisher Ecology Projects in California
Personal Communication: Greta Wengert, 2008, Integral Ecology Research Center, Humboldt State University, and U.C. Davis
- The proportion of fishers (*Martes pennanti*) exposed to pathogens within the USFS Kings River Study Project within the Sierra Nevada Mountains, CA.
Personal Communication: Mourad Gabriel, 2008, Integral Ecology Research Center, Humboldt State University, and U.C. Davis.



Timber Products Company

THE TREMENDOUS RESOURCE

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3/19/08

Dr. Eric Loft
Wildlife Branch, Department of Fish and Game
1812 Ninth Street
Sacramento CA 95814

Dear Dr. Loft;

Enclosed are copies of several studies of fisher (*Martes pennanti*) in Siskiyou County, California. The studies have been conducted primarily on Timber Products Company forestlands and adjacent USFS forestlands. We are providing these studies to you during your review of a petition to list fisher as a threatened or endangered species under the California Endangered Species Act.

Farber, S.L. and T. Franklin, C. McKnight 2008 Evaluation of fisher (*Martes pennanti*) distribution in the eastern Klamath province of interior Northern California. Timber Products Company, 130 Phillippe Lane, Yreka, CA. 16 p. This evaluation compared fisher presence found in previous Company reports with predicted fisher presence from the Carroll et al. 1999 habitat based probability model. At the 0.17 probability level the Carroll et al. 1999 model had an overall correct classification rate of 51% with an omission rate of 67%. At the 0.33 probability level the Carroll et al. 1999 model had an overall correct classification rate of 51% with an omission rate of 81%. Since models may be used to describe habitat distribution, fragmentation or absence, validation of these models in a wide variety of habitat and landscapes is needed. Fisher presence and preliminary genetic results in our study areas suggest that fisher populations are well distributed and genetically related, contrary to claims made by others that fisher populations are fragmented and genetically isolated in the Klamath province.

Farber, S.L. and T. Franklin 2005 Presence-absence surveys for Pacific fisher (*Martes pennanti*) in the eastern Klamath province of interior Northern California. Timber Products Company, 130 Phillippe Lane, Yreka, CA. 35 p. This study detected fisher in 15 of 18 (83%) four-square mile sampling units covering 43,928 acres. We found fisher detections were seasonally influenced. We found the Carroll et al. 1999 probability model failed to predict fisher in 8 of 15 sampling units or an omission rate of 53%. This study area contained a high density of low use roads, 4.2 miles/square mile, which did not appear to limit detection of fisher. This study area contained little old-growth or late-seral habitats, 4% of habitats greater than 24" diameter, however detection of fisher occurred throughout the study area. Fisher were detected in 58% of sampling units during a previous 1995 study and detected in 92% of the original sampling limits in 2005, demonstrating that fisher are persisting in our highly fragmented and heavily disturbed landscape.

Farber, S.L. and S. Criss 2006 Cooperative mesocarnivore surveys for the upper and west fork of Beaver Creek watersheds in interior Northern California. Prepared to complete FWS Agreement No. 813335J030, U.S. Fish and Wildlife Service, Yreka, CA, Timber Products Company, 130 Phillippe Lane, Yreka, CA., Criss and Co. Consultants, 5705 Porcupine Court, Weed CA, 26 p. This study detected fisher in 6 of 21 (29%) four-square mile sampling units covering 51,408 acres. This study also reverified detections of fisher made in the early 1990's and indicates fisher continue to persist within the study area containing a high density of low use roads, ranging from 2.4 miles/square mile to 5.5 miles/square mile. Fisher were detected on a variety of aspects and on slopes between 15% and 50%. Portions of the study area were located above 5,000 feet in a snow dominated zone that may have limited fisher detection, although fisher detection ranged from 3,400 feet to 6,160 feet.

McKnight, C. 2008 Research Note: Pacific fisher (*Martes pennanti*) in the Deadwood study area. Timber Products Company, 130 Phillippe Lane, Yreka, CA. 11 p. This study detected fisher in 6 of 8 (75%) four-square mile sampling units covering 20,956 acres in eastern Klamath province. All detections in the study area were locations not previously known to support fisher. The study area has been subject to historic trapping, numerous wildland fires, historic and current timber harvesting, extensive road building, and is near an urban interface of Fort Jones and Yreka, California.

Farber, S.L. and L. Finley, S. Yaeger, S. Bnrton, R. Callas 2008 Preliminary results from on going cooperative genetic mesocarnivore surveys. This presentation was made at a recent TWS conference and provided preliminary results of an on going genetic survey study of fisher. In 2006, from a total of 173 hair snagging samples, 44 samples were identified as fisher and 22 unique individual fisher were identified. Haplotype analysis indicates fisher within the study area are native to northern California and not similar to haplotypes found in introduced fisher in southern Oregon. Population assignment tests indicate that fisher from the two study areas are genetically similar, suggesting that a broad expanse of oak-woodland, state Highway 96 and the Klamath river, which are located between the two study areas, are not preventing fisher distribution in the eastern Klamath province.

We hope that you find the information contained in these reports interesting and informative. If you have any questions regarding these reports, please contact me at stuf@sor.timberproducts.com or at (530)842-2310.

Sincerely,



Stuart Farber
Wildlife and Fisheries
Timber Products Company

cc. Esther Burkett, DFG Sacramento
Gary Stacey, DFG Region 1
Mark Stopher, DFG Region I
Rich Callas, DFG Region 1
Jim Ostrowski



May 23, 2008

Documents submitted by CBD on May 23, 2008

Letter to Dr. Loft and DFG

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